

AMENDMENTS TO THE CLAIMS

The following is a complete listing of the claims indicating the current status of each claim and including amendments currently entered as highlighted.

Claims 1-17. (canceled)

Claim 18. (new) A system for reducing radiation exposure to a user of a cellular telephone, the system comprising:

(a) a conversion device which converts an output electrical signal from the cellular telephone into an ultrasonic acoustic signal transmitted through air in open air; and

(b) a second conversion device which receives in open air said ultrasonic acoustic signal and thereby converts said ultrasonic acoustic signal to an input electrical signal;

wherein said output electrical signal, said ultrasonic acoustic signal and said input electrical signal are each modulated with an audible signal for listening by the user.

Claim 19. (new) The system, according to claim 18 , further comprising:

(c) an audio transducer mechanism, operatively connected to said second conversion device, said audio transducer mechanism receiving said input electrical signal and demodulating said audible signal from said input electrical signal.

Claim 20. (new) The system, according to claim 19, wherein said audio transducer mechanism includes an audio transducer selected from the group consisting of earphones and loudspeakers.

Claim 21. (new) The system, according to claim 18, further comprising:

(c) a microphone which converts an input audible acoustic signal to a second output electrical signal;

(d) a third conversion device, operatively connected to said microphone, said third conversion device converting said second output electrical signal to a second ultrasonic acoustic signal;

(e) a fourth conversion device operatively connected to the cellular telephone, said fourth conversion device receiving from open air said second ultrasonic acoustic signal and thereby converting said second ultrasonic acoustic signal to an electrical signal input to the cellular telephone;

wherein said input audible acoustic signal, said second output electrical signal and said second ultrasonic acoustic signal are each modulated with an audible signal from the user.

Claim 22. (new) A cellular telephone for reducing exposure to a user of the cellular telephone, comprising:

(a) a conversion device which converts an output electrical signal within the cellular telephone into an ultrasonic acoustic signal transmitted through air in open air; and

(b) a second conversion device which receives from open air a second ultrasonic acoustic signal and thereby converts said second ultrasonic acoustic signal to an electrical signal input within the cellular telephone.

Claim 23. (new) The system, according to claim 22, wherein said conversion device converts said output electrical signal within the cellular telephone into said ultrasonic acoustic signal transmitted through air in open air, the conversion device including:

(A) an oscillator with an oscillator output signal at ultrasonic frequency;

(B) a combiner which combines said oscillator output signal with said output electrical signal into a combined output;

(C) an amplifier with an input port which inputs said combined output, said amplifier amplifying said combined output at ultrasonic frequency and thereby outputting an amplified ultrasonic electrical signal; and

(D) an ultrasonic speaker which inputs said ultrasonic electrical signal and outputs the ultrasonic acoustic signal transmitted through air in open air.

Claim 24. (new) A conversion device which converts an audible acoustic signal to an ultrasonic acoustic output, the conversion device comprising:

(a) a microphone which receives as input the audible acoustic signal and thereby converts the audible acoustic signal to an electrical signal at a microphone electrical output port;

(b) an electrical amplifier with an input port connected to said microphone electrical output port;

(c) an oscillator which generates an oscillator output signal at ultrasonic frequency; and

(d) a mixer which mixes said electrical signal from said microphone and said oscillator output signal and thereby produces a mixed electrical output at ultrasonic frequency.

Claim 25. (new) A method for reducing radiation exposure to a user of a cellular telephone, the cellular telephone equipped with an electrical coupler which outputs an output electrical signal modulated with a received-audible signal for listening by the user and the electrical coupler further inputs an input electrical signal modulated with a transmitted-audible signal from the user, the method comprising the steps of:

(a) converting the output electrical signal into an ultrasonic acoustic signal thereby transmitting said ultrasonic acoustic signal through air in open air;

(b) receiving said ultrasonic acoustic signal from open air and thereby converting said ultrasonic acoustic signal to a second input electrical signal; and

(c) demodulating the received-audible signal from said second input electrical signal.

Claim 26. (new) The method, according to claim 25, further comprising the steps of:

(d) converting an input audible acoustic signal to a second output electrical signal;

(e) converting said second output electrical signal to a second ultrasonic acoustic signal; and

(f) receiving from open air said second ultrasonic acoustic signal and thereby converting said second ultrasonic acoustic signal to the input electrical signal input.

Claim 27. (new) A system for reducing radiation exposure to a user of a cellular telephone, the system comprising:

(a) a microphone which converts an input audible acoustic signal to an output electrical signal;

(b) a conversion device, operatively connected to said microphone, said conversion device converting said output electrical signal to an ultrasonic acoustic signal; and

(c) a second conversion device operatively connected to the cellular telephone, said second fourth conversion device receiving from open air said ultrasonic acoustic signal and thereby converting said ultrasonic acoustic signal to an electrical signal input to the cellular telephone.